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society of  
energy engineers  
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## VIEW POINT

The installed power generation capacity of renewables claim a share of 23% but in actual generation, the share of renewables (solar) fall to a low 3% . This may be attributable to the intermittency of generation through renewables. This indicates to the enormous requirement of innovation and research required in the field of storage of energy.

Another area which offers humongous potential for innovation research and business is energy efficiency. As estimate projected by EESL parks the energy efficiency market at 7150 crores of Rupees. This is an opportunity as well as a necessity. Unless these kinds of energy efficiency investments do take place in the different sectors of economy like manufacturing, services, buildings and MSMEs, the scale of energy or resource productivity required to propel our nation to the growth levels will not take place. In addition, that kind of energy productivity is essential for containing the emissions to the levels dictated by climate science, enabling the planet to combat the climate change and its associated ills. The sweet part is that this necessity opens huge potential for energy management professionals to encase. All the same, to exploit, this potential, we as energy professionals may have to acquire some more different skills in addition to technical skills.

In order to address a huge market in the MSME for energy efficiency, we may serve well if we have empathizing skills. Blind technical thinking may not deliver the appropriate energy saving measure, but a bit of smart thinking from the entrepreneur's shoe may. This will call for better skill in finance which can help to device business models which can appeal to an entrepreneur. Unlike one size fits for all cases which proved to be failures in many cases, tailoring solutions to industries will deliver results. This approach can increase the trust factor in energy efficiency market which is also lacking in varying degrees across segments.

Energy professionals will have to gear up for the new technologies and application of the technologies to better our analysis and solution delivery. This will in turn reduce our costs and energy efficiency services may move better in affordability which will also help expansion of the market.

Thus, with technology and new skills and approach we can improve the reach of energy efficiency and thus energy productivity. Only when emissions get reduced in such a scenario along with GDP growth, we can pat ourselves that we are rendering our ordained responsibility.

**G Krishnakumar**  
National General Secretary



## CONTENTS

Refresher Courses for BEE  
Certified Energy Auditors  
(EAs) & Energy Mangers  
(EMs)

Petrol, diesel prices see big  
cut on Saturday

Tamil Nadu: Solar power  
plants bring fame to  
Coimbatore

Envision Energy  
commissions 2 wind  
projects in Gujarat

Power Min seeks Brazilian  
investment in energy sector

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## REPORT

## Refresher Courses for BEE Certified Energy Auditors (EAs) & Energy Managers (EMs)

The Bureau of Energy Efficiency (BEE), MoP, India has by now created a cadre of professionally qualified Energy Managers and Energy Auditors through a nationalized examination and as per Regulation 8 of BEE (Certification Procedures for Energy Managers), 2010, the EM & EA certificates have to be renewed after every five years through refresher workshops. In this context, Society of Energy Engineers and Managers (SEEM), conducted a series of 'Refresher Courses for BEE Certified Energy Auditor (EA) & Energy Manager (EM)' in association with BEE. Each refresher course was meant to be an "intensive strength building session" for providing the professionals with updates in the Energy Efficiency domain and to keep up their validation as Energy Auditor/Manager.

1. Energy Scenario Update
2. Perform Achieve Trade (PAT) Updates
3. Key Thrust Areas of Energy Conservation Act, 2001
4. Energy Efficiency Data Analytics
5. Energy Management System (EnMS): ISO 50001:2018
6. Measurement and Verification of Energy Performance of Organization
7. Best Practices, Technologies and Case Studies, Electrical and Thermal Systems
8. Best Practices in Building Energy Management and Conservation
9. Renewable Energy Technologies and Applications
10. GHG and Carbon Footprint Accounting and Reporting

### PROGRAMME 1 - ERNAKULAM

The session was arranged on 16th & 17th November 2019 at NIPM Conference Hall, Mather Square, Opp. Ernakulam Town (North) Railway Station, Cochin. The workshop was an interactive session with two Accredited Energy Auditor (AEA's) taking the lead and around 25 Energy Auditors and Energy Managers participating in the discussions. The key topics and speakers were as follows:



### PROGRAMME 2 – HYDERABAD

The session was arranged on 16th & 17th November 2019 at NIPM Conference Hall, Mather Square, Opp. Ernakulam Town (North) Railway Station, Cochin. The workshop was an interactive session with two Accredited Energy Auditor (AEA's) taking the lead and around 25 Energy Auditors and Energy Managers participating in the discussions. The key topics and speakers were as follows:



### PROGRAMME 3 – RAIPUR

The two-day event was held on 07th and 08th December 2019 at Hotel Blue Berry Inn, VIP Square, Near Zone Park, Beside Punjab National Bank, JeevanVihar, Raipur. The participants included two Accredited Energy Auditors (AEAs) as lead speakers and 26 Energy Auditors and Energy Managers





## REPORT

**PROGRAMME 5 – VADODARA**

The 5th refresher course of the programme was held in Vadodara on 14th and 15th December 2019 at the Baroda Productivity Council. During this two day workshop, a total of 25 participants were trained on good practices energy auditing, latest developments & advancements in the energy scenario, Renewable Energy, PAT, ISO 50001 (2018 version), Measurement & Verification, Carbon Footprint, Energy Conservation Building Code (ECBC), etc.

**PROGRAMME 7 – AHMEDABAD**

The 7th programme of the refresher course was organised on 21st and 22nd December at Ahmedabad Management Association, ATIRA Campus, Dr. Vikram Sarabhai Marg, Ahmedabad, Gujarat. During this two-day workshop, 23 participants were trained.

**PROGRAMME 4 – RAIPUR**

Another two-day refresher course was held in Raipur on 09th and 10th December 2019 at the same venue, Hotel Blue Berry Inn. Two Accredited Energy Auditors and around 25 Energy Auditors and Energy Managers were the participants.

**PROGRAMME 6 – CHENNAI**

The 5th refresher course of the programme was held in Vadodara on 14th and 15th December 2019 at the Baroda Productivity Council. During this two day workshop, a total of 25 participants were trained on good practices energy auditing, latest developments & advancements in the energy scenario, Renewable Energy, PAT, ISO 50001 (2018 version), Measurement & Verification, Carbon Footprint, Energy Conservation Building Code (ECBC), etc.







## NEWS

**PROGRAMME 9 – HYDERABAD**

The 9th BEE Refresher Course was organized on 28th and 29th December 2019 at Hampshire Plaza Hotel, Lakdikapul, Hyderabad. This two-day workshop was attended by 21 participants.

**PROGRAMME 8 – CHENNAI**

The 8th programme of the refresher course was organised on 28th and 29th December 2019 at ISHRAE CHENNAI CHAPTER, Alapakkam. During this two-day workshop, 22 CEAs/CEMs participated

**PROGRAMME 10 – VADODARA**

SEEM organized the tenth BEE Refresher Course on 04th and 05th January 2020 at Baroda Productivity Council, Productivity House, Alkapuri, Vadodara. During this two day workshop, 17 participants were trained.





## NEWS

## Petrol, diesel prices see big cut on Saturday

New Delhi: Fuel prices were dropped further on Saturday after international crude oil rates fell sharply following the outbreak of Corona virus in China.

The price of petrol was cut by 27 paise and that of diesel by 30 paise a litre across all major cities on Saturday.

The petrol now costs Rs 74.16 a litre in Delhi, Rs 79.76 a litre in Mumbai, Rs 76.77 a litre in Kolkata and Rs 77.03 a litre in Chennai after the price cut.

Similarly, diesel costs Rs 67.31 a litre in Delhi, Rs 70.56 a litre in Mumbai, Rs 69.67 per litre in Kolkata and Rs 71.11 a litre in Chennai, according to the Indian Oil Corporation website.

Brent crude was trading at \$60.56 per barrel on Saturday morning, down by 2.43 per cent from the previous close of \$62.07 per barrel on fears of slump in demand following the outbreak of deadly Corona virus in China.



The retail prices of fuel are dependent on the international crude prices and the rupee-US dollar exchange rate as India imports almost 80 per cent of its crude requirements.

Domestic petrol and diesel prices are reviewed by oil marketing companies on a daily basis. Price revisions are implemented at the fuel stations with effect from 6 a.m.

Source: <https://energy.economictimes.indiatimes.com/news/oil-and-gas/petrol-diesel-prices-see-big-cut-on-saturday/73604442>

## Tamil Nadu: Solar power plants bring fame to Coimbatore

Coimbatore: The city corporation on Friday bagged an award from the ministry of housing and urban affairs for conserving the urban environment by installing two solar power plants with a capacity of one megawatt each.

Corporation commissioner Sravan Kumar Jatavath received the award comprising a certificate and a cash prize of Rs 5 lakh at a function that was held in Vishakhapatnam.

The award ceremony was organized by the ministry to recognize the excellence of cities that were selected for the smart city project in areas such as water management, good governance and conservation of urban environment, among others.

The city corporation had spent around Rs 11 crore on the solar power plants. According to a source, the award also recognized the civic body's plans to utilize the places that were once dump yards for setting up the solar power plants.

The first plant at Ukkadam, which was set up at a cost of R 5.5 crore, has 3,168 panels with a capacity of 320 watts each. Inaugurated in March last year, it today supplies electricity directly to the Tamil Nadu Generation and Distribution Corporation's Ukkadam substation. The plant mainly helps the city corporation offset the electricity cost to operate the water pumping station at Velliangadu.



According to the source, the plant helps the city corporation save around Rs7.91 lakh on electricity bills a month.

The work on installing the second solar power plant is underway at Kavundampalayam.

The civic body has also plans to create a study centre at Ukkadam solar power plant, where students could come and study more about renewable energy and benefits. "We want to create more awareness among students and motivate them to move towards renewable forms of energy either in their houses, places of work or business in the future," the source said.

Source: <https://energy.economictimes.indiatimes.com/news/oil-and-gas/petrol-diesel-prices-see-big-cut-on-saturday/73604442>





## NEWS

## Envision Energy commissions 2 wind projects in Gujarat

Mumbai: Chinese turbine manufacturer Envision Energy on Thursday said it has commissioned two wind projects with a total capacity of 232.5 MW in Gujarat. The contracts involved a 197.5 MW wind power project for Actis-backed Sprng Energy and a 35 MW project for ReNew Power which were awarded under tranche 1 of Gujarat Urja Vikas Nigam's wind auctions.

The projects were built on turnkey basis using state-of-the-art 2.5-MW turbines with 131 m rotor diameter and 120 m hub height, the company said in a statement..

"It is the first time that a Chinese wind turbine company has built a large scale wind power project in India," Envision Energy India deputy MD Milind Kulkarni said.

He further said the nacelles and hubs for the turbines were assembled at its facility in Pune, where it has already invested USD 25 million (about Rs 175 crore).

"Soon we will commence manufacturing of steel tubular towers and rotor blades in the country, achieving complete indigenisation of major components," Kulkarni said.

The company also plans to soon introduce 3 MW class turbines with rotor diameters larger than 140 m and hub heights up to 140 m, suiting Indian wind and site conditions, the release said.



<https://energy.economictimes.indiatimes.com/news/renewable/envision-energy-commissions-2-wind-projects-in-gujarat/73575457>

## Power Min seeks Brazilian investment in energy sector

New Delhi: Power Minister R K Singh on Thursday urged Brazilian investors to invest in the Indian energy sector, saying it is the fastest growing energy market and its consumption will treble in coming days. Singh also assured investors that India will provide stable policy and regulatory regime to facilitate them.

"Meeting our aspirations require us to go on higher energy consumption pedestal.. with our low base (per capita) energy consumption, our energy consumption is going to double or treble in short while.

"We want more and more companies to come here and invest here. We can promise of stable policy regime. We can promise a regulatory regime which is fair and decides and totally at arms length from the government. All of you are welcome to invest here," Singh said while addressing a seminar -- India-Brazil Opportunities in Energy and Mining – here.

As far as energy is concerned, no other country will grow as fast as India, the minister added.

"We have to treble our energy consumption to catch with the world...I will hold your hand and see that you don't face any difficulty," he said.

The minister also elaborated on the scope of investment in power distribution as well as renewable energy segment where the nation is seeing huge expansion and entry of new players.

"You will see many large distribution companies emerging in India," he noted.

India has set a target of adding 175 GW of renewable power in the energy mix by 2022. It has already added 86 GW. Besides, around 36 GW is under installation and about 35 GW is under bidding stage.

The minister exuded confidence that India will have around 50 per cent renewables in its energy mix by 2030.

India has established power generation capacity of about 360 GW, which is expected to be trebled by 2030.



## NEWS

Singh also drew attention toward India's efforts for shifting to electricity based mobility and cooking which would also push power demand up.

He also said India's hydro power companies will be bidding for projects in Brazil whenever auction would be announced.

"We have huge companies in energy sector. We have companies in all segment like transmission, generation.. (like) Sterlite, Power Grid," the minister said.

The Brazilian minister also suggested that the two nations should join efforts and forces to make ethanol a global commodity.

The Brazilian minister also suggested that the two nations should join efforts and forces to make ethanol a global commodity.

He also said that Brazil is expanding its power generation capacity and transmission lines, and the highest share of direct investment from India in Brazil is in electricity.

"We welcome Indian capital and technology in the Brazilian power sector," he added.

Brazilian Minister for Agriculture Tereza Cristina noted that Brazil and India together account for approximately 55 per cent of world sugarcane production and just over 35 per cent of sugar output.

However, she said, "As far as ethanol is concerned, there is a big disparity: while Brazil is the world's second largest producer with over 30 billion liters, India produced only 1.5 billion liters in 2018. In this context, there is a huge potential for cooperation between our nations".

She was of the view that an increase in ethanol production in India will provide, in addition to the socio-economic benefits already observed, great environmental gains.

Source: <https://economictimes.indiatimes.com/small-biz/productline/power-generation/power-min-seeks-brazilian-investment-in-energy-sector/articleshow/73577611.cms?from=mdr>





## SEEM Individual Memberships Fee & Benefits

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1.	Annual Membership / Annual Associate Membership	Rs. 2500	Rs. 500	Rs. 3540
2.	Annual Fellowship	Rs. 3000	Rs. 1000	Rs. 4720
3.	Life Membership	Rs. 6750	Not Applicable	Rs. 7965
4.	Life Fellowship	Rs. 12,000	Not Applicable	Rs. 14160
5.	Student Membership	Rs. 500	Rs. 500	Rs. 1180

### Who can join SEEM?

- BEE Certified Energy Auditor
- BEE Certified Energy Manager
- Engineers working in energy related field holding a position of high responsibility with minimum 20 years experience
- Any Degree/ Diploma holders working in the field of Energy Efficiency/ Energy Conservation/ Renewable Energy for the last two years
- Engineering students and students who would like to do research or undertake projects in the energy sector

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- Opportunities to get your case studies published in SEEM print magazine "Energy Manager"
- Opportunities to publicize your efficiency initiatives in the monthly e-newsletter SEEM News
- Speaking / Presentation opportunities at various forums
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- Opportunities to become a SEEM Trainer / Expert Faculty
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- Leadership and participation opportunities in various SEEM programmes
- Networking opportunities with many energy professionals from across the country
- Knowledge enhancement platform in the energy sector
- Right to cast vote at the SEEM Annual General body Meeting
- All communications, which includes: notices about meetings, invitation to events, announcements about the SEEM activities.
- Priority to participate in funded projects carried out by SEEM in the energy sector, on the terms and conditions appropriate to such projects
- Support for addressing relevant grievances

- An opportunity for cross-fertilization of ideas with access to lessons learnt by others

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- A discount of 50% on priced publications brought out by SEEM
- Upto 50% discount on applications to SEEM National Energy Management Awards every year
- Discounts on any other programmes/ products or services offered by SEEM

### Your membership kit includes:

- SEEM membership ID card
- SEEM Membership Certificate
- Subscription to SEEM print magazine Energy Manager
- Subscription to monthly e-newsletter SEEM News

### Membership Categories & Eligibility

Category	Eligibility
Member	Energy Manager / Energy Auditor certified by Bureau of Energy Efficiency
Associate Member	Any diploma / degree holder who is working in the field of energy efficiency/conservation/ renewables for the last two years.
Fellow	Engineers working in energy related field holding a 'position of high responsibility' with minimum 20 years experience and who have been certified as Energy Managers or Energy Auditors by the Bureau of Energy Efficiency, Ministry of Power.
Honorary Fellow	Persons who are qualified to be Fellows invited to join SEEM as Honorary Fellows, subject to the approval of the Executive Council.
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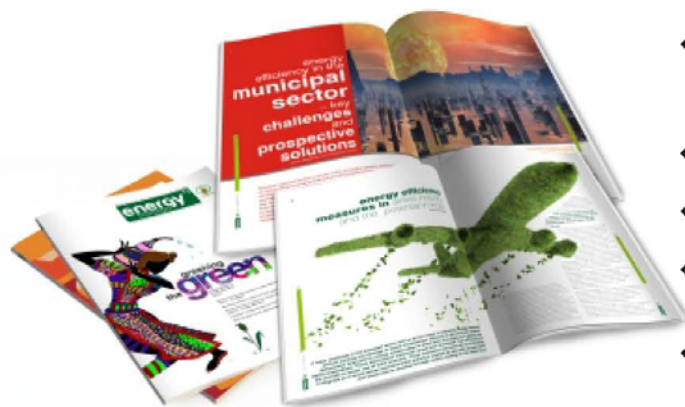
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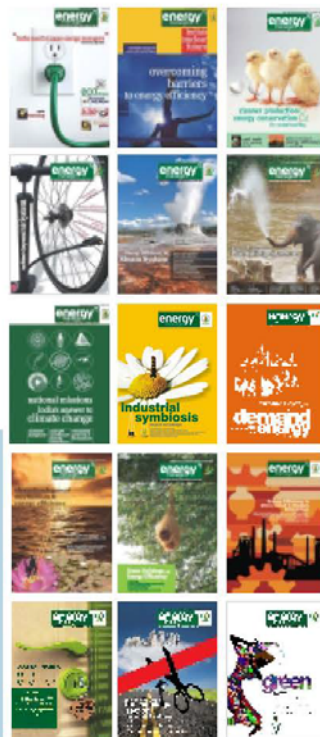
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